

Appl. No. 09/419,927
Amendment dated March 11, 2003
Reply to Office Action of Oct. 30, 2002

REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested.

Claims 10 through 15 are pending in the application with claims 4 through 9 having been cancelled, and new claims 10 through 15 added.

The Title of the application has been amended in accordance with the Examiner's suggestion in the Office Action of August 14, 2001.

Support for new claim 10 appears in the application, *inter alia*, on page 4, first paragraph under Summary of the Invention; page 10, last paragraph; and page 12, lines 5-9.

Claims 4-9 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention.

Specifically, according to the Examiner:

1) The phrase "a partially purified protein of extensin" is indefinite.

This language no longer appears in the claims.

2) It is unclear what the claimed composition should comprise other than the partially purified extensin because it is not understood how the partially purified protein also comprises other proteins.

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The "partially purified protein of extensin" no longer appears in the claims.

3) The phrase "... containing non-covalent bonds between hydroxyproline-rich glycoprotein and rhamnogalacturonan-1..." is confusing, because it is unclear how many rhamnogalacturonan proteins are there.

Reference to rhamnogalacturonan proteins no longer appears in the claims.

Accordingly, it is requested that the rejection of claims 4-9 under 35 U.S.C. § 112, second paragraph, be withdrawn.

Claims 4-9 have been rejected under 35 U.S.C. § 112, first paragraph, because the specification, while being enabling for a composition comprising a partially purified protein of extensin, which lacks a tetra-hydroxyproline block, does not reasonably provide enablement for a composition comprising a partially purified protein of extensin, which lacks a tetra-hydroxyproline block, in a therapeutically effective amount sufficient for cytotoxic enhancement for lymphocytes.

The feature of the extensin being present in a therapeutically effective amount sufficient for cytotoxic enhancement for lymphocytes no longer appears in the claims. Rather, new claims 10-15 recite the presence of extensin and at least one pectin or polysaccharide found in pectin in a therapeutically effective amount sufficient to activate eukaryotic cells to

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survival, proliferation, or survival and proliferation. It is submitted that this feature is well enabled by the specification. See, for example, the disclosure from page 9, line 17, to page 12, line 29.

Accordingly, it is requested that the rejection of claims 4-9 under 35 U.S.C. § 112, first paragraph, be withdrawn.

Claims 4-9 have been rejected under 35 U.S.C. 102(b) as being anticipated by Li et al, (1989).

Li et al. disclose an extensin isolated from sugar beet cell suspension cultures that fulfills all criteria for membership in the extensin family except that it lacks the diagnostic pentamer Ser-Hyp-Hyp-Hyp-Hyp. Rather the extensin includes the sequence Ser-Hyp-Hyp-[X]-Hyp-Hyp-Thr-Hyp-Val-Tyr-Lys, where [X] is [Val-His-Glu/Lys-Tyr-Pro]. There is no disclosure or suggestion of a composition that is a combination of such an extensin with at least one pectin or polysaccharide found in pectin, and, particularly no disclosure of such a composition in a concentration sufficient to activate eukaryotic cells to survival, proliferation, or survival and proliferation.

Accordingly, it is requested that the rejection of claims 4-9 under 35 U.S.C. § 102(b) be withdrawn.

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In view of the foregoing, it is submitted that this application is now in condition for allowance and an early Office Action to that end is earnestly solicited.

Respectfully submitted,

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